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ABSTRACT

This publication presents a literature review on the gifted in Section I and a plan for a projected gifted national data base in Section II. Five common misconceptions concerning the gifted are disspelled, and in addition, characteristics of the gifted are listed. Discussion of programs for the gifted focuses on contents, learning environment, and instructional models. The best programs integrate cognitive, social, and emotional development. Psychosocial development of identified gifted students is examined in these areas: maturity, psychosocial adjustment, self-concept, self-esteem, and personality characteristics. The effectiveness of gifted programs is reviewed, and a summary identifies these ten elements as relevant: (1) differentiated education or services beyond those normally provided by the regular classroom; (2) early intervention; (3) multidimensional and varied identification procedures; (4) focus on specific talents; (5) cognitive, intellectual, creative, and talented needs met within the fine arts and other areas; (6) individual design; (7) intellectual peer interaction; (8) interaction with gifted and/or talented adult role models; (9) emotional and social adjustment needs met; (10) psychological support to aid in realizing potential. These elements are the basis for College Studies for the Gifted Program, a validated program of the National Diffusion Network, at Fort Hays State University. The entrance requirements to the College Studies for the Gifted Program and results of a 1985 study on program participants are given. Instruments and reporting forms are included to facilitate the task of initiating gifted programs and organizing a national data base. This document contains 98 references. (ALL)

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COLLEGE STUDIES FOR THE GIFTED

AN ACADEMIC APPROACH FOR THE GIFTED, TALENTED AND CREATIVE STUDENT

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COLLEGE STUDIES FOR THE GIFTED

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RECOGNITION FOR THE COLLEGE STUDIES FOR THE GIFTED PROGRAM AT FORT HAYS STATE UNIVERSITY

The College Studies for the Gifted Program was initiated in 1980 on the campus of Fort Hays State University.

The National Dissemination Study Group and Sopris West are pleased to present the thirteenth edition of EDUCATIONAL PROGRAMS THAT WORK, the annual NATIONAL DIFFUSION NETWORK catalog of exemplary educational programs...The term "exemplary program" is conferred only after a project has been approved by the Department of Education's JOINT DISSEMINATION REVIEW PANEL...Approval by the Panel means that...the program has met its stated objectives at the original development or demonstration site. In addition, the program developer has proved that the program will meet the educational needs of others in similar locations. College Studies for the Gifted (CSG). A program providing academically advanced opportunities for the intellectually, artistically, dramatically, and musically gifted students ages 10-18. Approved 7/2/87. (EDUCATIONAL PROGRAMS THAT WORK, edition 13, 1987: Sopris West, Inc. in cooperation with THE NATIONAL DISSEMINATION STUDY GROUP, pp. v, J-4).

State of Kansas SENATE RESOLUTION No. 1847. A Resolution commending Fort Hays State University on its College Studies for the Gifted Program...Whereas, The university program is one of the three university programs in the National Diffusion Network...Whereas, This grant affords Fort Hays State University the opportunity to establish the College Studies for the Gifted Program in universities across the country, affording gifted students the opportunity to participate in a program of academic excellence...We commend Fort Hays State University on its College Studies for the Gifted Program. (March 23, 1987)

Fort Hays State University served as the host institution for the First Annual Kansas Regents Honors Academy which enrolled approximately 140 of the "best and brightest" high achieving students representing every area of the state. (Summer, 1987)

ABOUT THE AUTHORS

ANNA L. LUHMAN, Director, College Studies for the Gifted (CSG) at Fort Hays State University, received her degrees from Kansas Wesleyan University and Fort Hays State University. She spent eleven years as a public school teacher before designing, developing, and implementing the CSG program at FHSU. She also serves on the Kansas Regents Honors Academy Advisory Committee for the Kansas Board of Regents and was given the responsibility for designing and implementing in the Summer of 1987 the first Kansas Regents Honors Academy for high-achieving juniors and seniors. Under her direction the CSG program won unanimous approval as a program of merit from the Joint Dissemination Review Panel of the National Diffusion Network in the U.S. Department of Education. Nationwide dissemination of the CSG program began April 1987 with a grant from the U.S. Department of Education. Besides her academic work with gifted students, she serves as an expert on gifted education issues before the Kansas State Legislature. She and her three children, Michael, Kevin, and Janella, enjoy snow skiing, traveling, movies, and visiting with friends.

RONALD J. FUNDIS, Professor of Sociology at Fort Hays State University, received his degrees from Emporia State University and the University of Kansas. He has been a visiting professor at the National University in Nicaragua and a lecturer in public and private universities in Mexico, Guatemala, Honduras, El Salvador, Costa Rica, and Paraguay. His consultant activities focus on the family (coalitions for the prevention of child abuse, foster parent organizations, marriage enrichment and parenting programs), local and regional economic development, and interpersonal/interagency communication and conflict resolution. His experience in the area of gifted education is multifaceted--an Honors student as an undergraduate, an Honors Program professor at two universities, as a faculty member at the Kansas Regents Honors Academy, as the father of a gifted daughter, and as a parent educator for those with gifted children. He and his wife, Kathie, and daughter, Tamara, enjoy traveling, poetry, photography, art, music and the company of good friends.

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The authors wish to encourage the continued assertiveness on the part of the members of the Kansas Board of Regents as advocates of excellence in education. We also wish to acknowledge corporate friends, Rick and Gail Kuehl, owner-operators of McDonalds of Hays who provided invaluable service to the Kansas Regents Honors Academy held at Fort Hays State University the summer of 1987.

Our newest colleague, Ms. Linda Jones (Program Officer of the National Diffusion Network of the U.S. Office of Education), has been extremely helpful.

To our staff also go special kudos--Ms. Jeanne Harkness for assisting with the research and the writing of the literature review; to Ms. Harriet Ison and to Ms. Dee Hand, who prepared the final copy for the publisher. Our recognition and thanks go to all who have assisted us with the several projects of the College Studies for the Gifted Program; however, any opinions, findings, recommendations, or errors are those of the authors and we assume responsibility for them.

On a more personal level, we would like to express our gratitude to our families who continue to support and to believe in us and what we are trying to accomplish--

Michael, Kevin and Janella — Kathie and Tamara

Anna L. Luhman — Ronald J. Fundis

FOREWORD

This project attempts to highlight selected aspects of the issues surrounding gifted education in America today. The focus centers on areas of greatest consensus for programs at the college level for high achieving, talented and gifted pre-college young people.

In 1972, there was a recommendation from Congress to the Office of Education to encourage new efforts and programs for gifted, talented and creative students. This was a result of the concerns expressed by many that we might be losing our competitive edge and, perhaps, even jeopardizing our national security by not providing better for the most capable students. In 1980, the Kansas legislature mandated that all schools in Kansas must provide for the needs of all gifted students. This same year, the College Studies for the Gifted Program was founded on the campus of Fort Hays State University in the School of Arts and Sciences.

It is the hope of the authors that this publication will be of assistance to those who are charged with the responsibility of designing,improving, or carrying out a program for the gifted, talented and creative students.

Hays, Kansas
Winter, 1987

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CONTENTS

SECTION I. A REVIEW OF THE LITERATURE ON THE GIFTED

Misconceptions Regarding the Gifted 1

Characteristics of the Gifted 3

Identification of the Gifted 4

Definitions of the Gifted 5

Programs for the Gifted 6

Psychosocial Development of the Gifted 9

Subsets of the Gifted Population 13

Effectiveness of Gifted Programs 15

Gifted Program Summary 16

References 18

SECTION II. TOWARD A NATIONAL DATA BASE

Gifted Identification Issues 24

Fort Hays State University Program Data 29

Forms for the Creation of a National Data Base 31

SECTION I. A REVIEW OF THE LITERATURE ON THE GIFTED

MISCONCEPTIONS REGARDING THE GIFTED

CHARACTERISTICS OF THE GIFTED

IDENTIFICATION OF THE GIFTED

DEFINITIONS OF THE GIFTED

PROGRAMS FOR THE GIFTED

PSYCHOSOCIAL DEVELOPMENT OF THE GIFTED

SUBSETS OF THE GIFTED POPULATION

EFFECTIVENESS OF GIFTED PROGRAMS

GIFTED PROGRAM SUMMARY

REFERENCES

MISCONCEPTIONS REGARDING THE GIFTED

There are many misconceptions concerning gifted and talented students. Tuttle and Becker discuss five of the most common. The first misconception is: "The gifted are already provided for" (1983:14). In actuality, they point out that most of the attention in schools is focused on the "average" student. Teacher training, instructional materials, and curricular materials are designed for average students since this group is the largest and most profitable market. In the regular classroom, gifted students are taught with information, instruction, and materials considerably below their potential. In fact, they are presented with skills and concepts they may have already mastered. Zettel and Ballard (cited in Tuttle and Becker, 1978:15) state the following: "Too many gifted and talented children are suffering from neglect that derives from failure to provide the special educational support required to meet their unique learning needs."

Marland (1972), a former United States Commissioner of Education, states that gifted and talented children are disadvantaged and handicapped in the usual school situation. He cites Terman (1925) who states that the gifted are the most retarded group in the schools when mental age and chronological ages are compared. Marland discusses the large discrepancies that exist between what the gifted child knows and what the gifted child is offered. This discrepancy creates boredom, which can and often does lead to underachievement and unworthy patterns of functioning.

The Marland Report (1972) further concludes that special programming for the gifted is a low priority at all levels of government. It also states that existing services to the gifted do not, generally speaking, reach a large number of students and significant subpopulations (such as minorities and disadvantaged) are strikingly underserved.

Deleon and Vandenbos (1985) discuss two studies related to this first misconception. The first, by Gallagher, Weiss, Oglesby, and Thomas (1983), was a nationwide survey of administrators, teachers, parents, and state directors of programs for gifted education. They reported almost half of the gifted and talented students were receiving no special education. A study by Kakalik, Furry, Thomas, and Carney (1981) shows that the expenditure per gifted student, which could provide appropriate specialized programming, was far lower than that for any other major category of exceptional child, except for those with speech problems.

The second misconception is as follows: "The gifted will succeed anyway" (Tuttle and Becker, 1983:15). The Marland Report (1972) concludes that gifted students cannot excel without assistance, and that an enormous individual and social loss exists because the talents of the gifted are undiscovered and undeveloped. Deleon and Vandenbos (1985) state that gifted students can be harmed when their opportunity to function at the maximum of their ability is restricted through deprivation of appropriate educational resources. Such deprivation is equal to or greater than that suffered by any other population with special needs. The "A Nation at Risk" report by the National Commission on Excellence in Education (1983) also states that over half the population of gifted students do not match their tested ability with comparable achievement in school.

The evidence indicates that academic problems accrue to gifted students who do not receive adequate training. Roger Taylor, at a national conference in 1982, stated that 24% of all drop-outs are gifted. When looking at the drop-out rate of gifted in Iowa, Green (1962) found that 17.6 percent of the gifted students were not completing high school. Gallagher and Crowder (1957) report that many gifted children were poorly motivated and frustrated by the rigidity

and intellectual sterility of the regular classroom.

Tuttle and Becker (1983) state that gifted children may be able to maintain average growth in a regular class, but that they will probably not achieve full potential unless special provisions are made. They further feel that without special provisions, there may be an erosion of academic performance. The lack of challenge can foster poor academic attitudes and lazy study habits that can further impede full academic achievement. An example of this is an analogy made by Gallagher (1975:10) concerning a talented high jumper who is required to jump at only two or three feet: "He can soon get tired of such easy work and will certainly develop sloppy and poor habits that will ill serve him when he, in fact, is finally challenged."

A third misconception mentioned by Tuttle and Becker (1983:16) is that "the gifted student in a special program will have emotional and social problems." In addressing these problems, they state that most research has shown this belief to be largely unsubstantiated. The emotional problems that do arise are usually brought on by the frustration of the child's inability to use his/her talents. They cite several studies to support the idea of the frustration of gifted children. One source is Martinson's (1972) report for the United States Office of Education. She reveals that researchers have found that gifted individuals who participated in special programs did not suffer social or personality problems. Solano (1976) looked at the relationship between precocity and subsequent achievement and concluded that gifted and successful adults can continue to demonstrate exceptional abilities and success, especially if their achievements are viewed in relation to their own goals. Montour (1977) researched the lives of gifted individuals and concluded that, although there are unique exceptions, most gifted persons who are allowed to proceed at their own rate and in accordance with their own goals lead successful and happy lives.

A fourth misconception is: "Special programs benefit only the participants" (Tuttle and Becker, 1983:17). The Marland Report (1972) discusses how society as a whole benefits from gifted individuals realizing their potential. Societal needs for highly educated and highly skilled persons are increasing. Marland also states that conservation as a social priority should include human conservation. He further elaborates on Terman's (1926) biographical assessment of various gifted and talented people such as John Quincy Adams, Voltaire, Mozart, Dickens, and Galileo, stating that there is an abundance of evidence of the many lasting contributions to society which were made by individuals who rank within the gifted and talented category. So special services for the benefit of the gifted and talented also benefit other populations in need.

Tuttle and Becker (1983) also discuss how programs for gifted and talented students can benefit the entire curriculum and atmosphere of a school. If gifted students are allowed to share their interests and enthusiasm, their attitudes can permeate the entire school. Furthermore, when gifted students are separated, other students sometimes begin to play a more active role in the classroom.

Tuttle and Becker discuss how gifted and talented youngsters are our country's greatest resource. They state that in order for these individuals to be of maximum service to society, educational programs are needed which allow them to enter productive stages earlier and which encourage meaningful productivity throughout the educational process (1983:13). They also point out that we need those who have the ability to perceive potential problems before they become insurmountable.

The final misconception that Tuttle and Becker discuss is: "If gifted and talented individuals are selected for a special program, they will become

elitist snobs" (1983:18). They discovered that some students become less elitist when included in a special program because they do not feel like they have to be defensive about their abilities with their peers. They state that an elitist attitude can be a defensive posture adapted to overcome their feelings of difference.

Tuttle and Becker (1983) also state that most students tend to regard programs for gifted and talented students as just another vehicle for education. In Ford's (1978) attitude survey of gifted students concerning their inclusion in a special program, she found that 86 percent felt they were not treated any differently by their peers after inclusion in the program than before.

Others have also found a lack of an elitist attitude in the gifted. Tremaine (1979) compared gifted students enrolled in gifted programs to gifted students who were not enrolled in special programs. She found no evidence of snobishness among the gifted students who were enrolled in special programs.

Tuttle and Becker (1983) conclude that the research shows that gifted students in special programs do not consider themselves an elite group. They realize that they have exceptional abilities, but can usually put it into a realistic perspective. Tuttle and Becker cite a related study by Martinson (1972) in which she concludes that gifted and talented in special programs relate better to the non-gifted population than gifted and talented not in these situations. Similarly, Marland (1972) reports that if gifted students' needs are met, their own sense of adequacy and well-being will improve along with their attitudes toward themselves and others. Therefore, the likelihood that the gifted and talented will relate to the total society and work within it is enhanced.

CHARACTERISTICS OF THE GIFTED

What does it mean to be gifted and/or talented? Marland, in his report to Congress, defines it as follows:

> Gifted and talented children are those identified by qualified persons who by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.
>
> Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:
>
> 1. general intellectual ability.
> 2. specific academic aptitude.
> 3. creative or productive thinking.
> 4. leadership ability.
> 5. visual and performing arts.
> 6. psychomotor ability.
>
> It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5 percent of the school population (1972:IX).

Davis and Rimm (1985) and Clendening and Davies (1980) discuss the characteristics of gifted and/or talented children. They include precocious language and thought, early reading, advanced comprehension, motivation, persistence, curiosity, wide interests, ability to learn easily and quickly, and

early writing, math, music and/or art. Thinking is fluent, flexible, original, and elaborative. This list is not exhaustive, nor do all gifted/talented children display all of these characteristics.

Unfortunately, there are some characteristics of gifted and talented students which are often ignored or even penalized within the regular classroom setting (Tuttle and Becker, 1983:10). They are as follows:

1) divergent thinking and ability to perceive unusual and broad relationships;

2) different time/space perspective;

3) variety of valid alternatives from which to select careers;

4) divergent modes of responses to problems;

5) persistence of goals and a need to delve deeply into problems of interest; and

6) questioning, often critical, attitude.

IDENTIFICATION OF THE GIFTED

Davis and Rimm (1985) discuss the methods in which gifted and talented children are identified. These include intelligence tests--both group and individual, achievement tests, teacher nominations, creativity tests, parent nominations, peer nominations, self-nominations, product evaluations, and rating scales. Issues and factors of concern with the various methods include reliability, which refers to the accuracy or consistency of a test. No test or rating scale has perfect reliability. Another factor is the validity of the test. Validity is the extent to which a test truly measures what it is designed to measure. Davis and Rimm point out that one must always be aware of the reliability and the validity of the tests or procedures which have been used. They go on to state that because all identification tests and methods will have less than ideal reliability and validity, reliance on a single measure will cause gifted children to be overlooked. They strongly stress that a multidimensional procedure be used for identifying gifted and/or talented children. It should be flexible and include both objective and subjective measures. (See Section II for examples of identification instruments.)

Another factor that Davis and Rimm (1985) discuss is biases in ratings and nominations. Characteristics such as cooperation, anxiousness to please, doing work neatly, well, and on time tend to be what teachers like, and students exhibiting these attributes are more likely to be selected by teachers for special programs. Characteristics such as those mentioned on the previous pages, although indicative of giftedness, tend to be misinterpreted or overlooked.

The culturally diverse, disadvantaged, and/or minority students also can pose some special problems which need to be considered when looking at identification methods (Clendening and Davies, 1980; Davis and Rimm, 1985; Baldwin, 1985). Culturally different learners tend to score, on the average, about one standard deviation (15 points) lower than middle-class students on standardized intelligence tests, which is partly due to the fact that most instruments have been normed on the majority culture. Also, each culture has its own criteria for what is desirable behavior, and what is gifted or talented behavior. So behavior patterns and responses often vary from the typical indicators of giftedness and talent observed in the dominant culture. There is also a problem with a preoccupation with or an unwillingness or inability to see past the ethnicity or social characteristics of the group from which the student comes.

Each of the methods used to assess gifted students has possible problems and shortcomings which must be considered when trying to identify a gifted student. This is why it is so strongly recommended to employ multidimensional, flexible procedures. Davis and Rimm (1985) also point out that identification procedures must be related to one's definition of giftedness and to the goals of the program.

DEFINITIONS OF GIFTEDNESS

Giftedness has most often been determined on the basis of scores on group achievement tests and individual tests of intelligence (Fox, 1981). Torrance (1986) feels that the use of these tests alone misses about seventy percent of those who are equally gifted on creativity criteria. It is clear that a strong single theoretical framework for considering giftedness has not been agreed upon (Horowitz and O'Brien, 1985).

When considering the meaning of "gifted," Sternberg and Davidson (1985) believe the following two issues should be addressed: (1) the range of skills and behaviors that are accepted as representing true gifts and talents; and (2) the level at which these skills and behaviors must be exhibited in order to set them off from ordinary manifestations.

Our society has various taxonomies which designate the gifts and talents that are recognized as important. They range from those who feel that IQ is a good measure of intellectual giftedness (Humphreys, 1985) to those who feel that IQ is not a criteria for giftedness (Wallach, 1985). Humphreys believes that the fundamental basis for intellectual giftedness is a high level of general intelligence. There is a great deal of commonality between the various kinds of intellectual giftedness. On the other hand, Wallach feels that scores on tests of intellectual ability are not good predictors of giftedness. He cites research (Walberg, 1971; Richards, Holland, and Lutz, 1967; Munday and Davis, 1974; Holland and Richards, 1965; Parloff, Datta, Kleman, and Handlon, 1968; Wallach and Wang, 1969; Willingham and Breland, 1982) that shows there is very little correlation between IQ scores alone and out-of-school accomplishments. He believes that giftedness is much more domain-specific than was first thought. Consequently, the focus for identifying gifted individuals should be the students' specific talents, not their assumed general abilities.

Renzulli (1978) defines giftedness as above-average ability, creativity, and task commitment. Sternberg and Davidson (1985) say that giftedness represents effective intercommunication among intellectual processes such as selection of relevant information, problem recognition, problem solving, and the mapping of higher order relations. They also include insight which they define as the selective encoding and combining of information in order to arrive at novel understandings. Gardner (1983) postulates that we have more than one intelligence. He identifies seven different intelligences: linguistic, musical, logical and mathematical, visual and spatial conceptualization, bodily-kinesthetic, interpersonal, and intrapersonal. Ability in one area of intelligence is not necessarily related to ability in other areas. Being creative in a given area of intelligence is the highest level of functioning in that domain.

Sternberg and Davidson (1985) discuss a theory of Feldman (1980, 1982) that states that giftedness is highly dependent upon circumstances occurring together--most of which the individual has no control over. Not only must the person start out with some talent, he or she must display dedication in a domain that is recognized by society as a legitimate field for the display of exceptional talent. Then the person needs to grow up in an environment which will nurture this talent. In addition, there must be outstanding instruction and mentorship in this field. Finally, the development of exceptional talent hinges on the prestige and value placed on the field at that particular time.

The issue of whether giftedness is domain specific or is a general characteristic represents one of the major unresolved questions surrounding the definition of giftedness (Horowitz and O'Brien, 1986). Horowitz and O'Brien point out that the idea of domain-specific giftedness does not have to contradict the idea of higher order processes that operate across domains. They give the example that knowledge can be domain-specific, but the mechanisms a person needs to use that knowledge may be general capabilities.

Sternberg and Davidson (1985) feel as though the following five generalizations apply across taxonomies: 1) high general intelligence and exceptional specific ability; 2) exceptional capitalization upon patterns of abilities; 3) exceptional environmental shaping abilities; 4) exceptional problem-finding ability; and 5) exceptional ability to conceive higher order relations.

PROGRAMS FOR THE GIFTED

There is considerable disagreement among the experts in the field of gifted education on what the programs for gifted students should and should not include. According to Fox and Washington (1985), disagreements usually involve four issues. The first is the definition of giftedness which was discussed in the preceding paragraphs. Programs differ because the educational planners define their target populations in different ways.

A second area of disagreement concerns the learning environment. Some educators are very opposed to gifted students being homogeneously grouped, while others believe they should be. Some educators feel it is best to put the gifted student in a special classroom, whereas others feel it is better to individualize instruction within the regular classroom, or place the student in a more advanced class (Fox and Washington, 1985).

A third issue treats the instructional model used. Disagreement occurs because there is very little research which compares different instructional methods of curriculum models among samples of gifted students. Since empirical data are not available, the decisions that are made are based on philosophical positions, which return us again to the particular definitions of giftedness being used.

One of the more widely known models is the Enrichment Triad Model (Renzulli, 1977). It consists of three types of enrichment activities. Type I consists of activities which motivate the student and brings the student in touch with areas in which he or she is interested. Type II consists of group training activities. It is designed to teach specific skills. Type III is individual and small group investigations of real problems in an area in which the individual has chosen. Types I and II are recommended for all students, whereas Type III is mainly appropriate for gifted and talented students (Tuttle and Becker, 1983; Davis and Rimm, 1985).

The Revolving Door Identification Model (Renzulli, Reis, and Smith, 1981) incorporates the preceding model. Twenty-five percent of the students are selected for a talent pool. All work on Type I and II activities. When a student shows a strong interest in a project, she is assigned to the resource room until the project is completed, and then revolves out again to make room for another person (Davis and Rimm, 1985; Tuttle and Becker, 1983).

Another widely used model is Guilford's (1967) Structure of the Intellect Model. Aspects of intelligence vary along three dimensions--operation, content, and product. Operation has five sub-categories and describes the major intellectual activities through which one processes information from the environment. Content has four sub-categories and describes the forms information may take while in the environment. Product has six sub-categories and describes the form information takes as it is being processed by the individual.

Consequently, there are 120 possible combinations, with each being a unit of intellectual ability. The different abilities help guide the diagnosis and remediation of specific learning abilities (Davis and Rimm, 1985; Tuttle and Becker, 1983).

One more widely used model is Bloom's (1956) taxonomy. It is a hierarchy of cognitive behaviors with each level incorporating all previous levels with the exception of evaluation which may occur at any level. The categories are knowledge, comprehension, application, analysis, synthesis, and evaluation. Knowledge is the recall of information. Comprehension refers to the understanding of material. Application is the ability to apply understanding of concepts to other situations. Analysis is the ability to break down and describe the components of an item and the relationships of those components to each other and to the whole. Synthesis is the ability to draw together ideas or materials from different sources to create something new. Evaluation is judgements about the value, purpose, or quality of an idea or item. Most regular class time is spent on knowledge and comprehension. Gifted and talented students need a greater proportion of instructional time devoted to analysis, synthesis, and evaluation. The taxonomy guides the selection of learning activities and classroom questioning techniques (Davis and Rimm, 1985; Tuttle and Becker, 1983).

Davis and Rimm (1985) point that there is no "best" model or program. They further argue that each program be designed to meet the needs of particular or targeted gifted students.

The final issues discussed by Fox and Washington (1985) concern the program goals. Some education planners (Stanley, Keating, and Fox, 1974) feel acceleration through the basic curriculum is the main goal; whereas others (Renzulli, 1978) think that the main goal should be the enrichment of the students' experiences, which is added to the basic curriculum. Some planners (Betts and Neihart, 1985) think nonacademic goals are important: counseling, social and intellectual interaction with gifted peers, or interaction with gifted adult role models. There are educators who adhere to the content model which focuses on learning specific bodies of content; on the other hand, there are others who adhere to the process model which focuses on general problem-solving strategies and creative thinking (Fox and Washington, 1985). Some of these disagreements are related partly to the differences in definitions of giftedness.

The Marland Report states that gifted children require differentiated educational programs. Three characteristics established for a differentiated educational program are as follows:

1. A differentiated curriculum which denotes higher cognitive concepts and processes.

2. Instructional strategies which accommodate the learning styles of the gifted and talented and curriculum content.

3. Special grouping arrangements which include a variety of administrative procedures appropriate to particular children, i.e., special classes, honor classes, seminars, resource rooms, and the like. (1972:X)

Enrichment and acceleration approaches to gifted programming are generally considered the two major means of providing differentiated education for the gifted. Both approaches share the same general goal of finding gifted students and providing an educational program for them that will help these persons to develop fully. Under both approaches, the gifted student is taught that

1. learning requires persistence and resourcefulness

2. an important goal of learning is to become a self-sufficient learner

3. learning is assessed according to the outcome of that learning (Kirschenbaum, 1984:96).

Educators that adhere to the acceleration model find students with markedly superior abilities compared to the average student. The level of ability is matched with an appropriate program of accelerated instruction. The primary aim in instruction is to teach a specific content area. Acceleration programs are meant to be cost-effective and highly efficient in teaching gifted students advanced skills. The primary purpose of acceleration is to speed up the educational development of budding professionals so that they will be in a position to make an impact on society when they reach their creative "peak," which is said to be in the mid-to-late twenties (Kirschenbaum, 1984).

Enrichment program designers believe that gifted children have a mix of cognitive strengths and talents; therefore, no one is denied entry into a gifted program on the basis of less than superior test scores. Students can participate in the program if they display behavioral characteristics defined by Renzulli (1978)--above-average ability, creativity, and task commitment. The focus is on teaching gifted students how to coordinate and focus their interests and energies into purposeful research, decision-making, and action. The teacher is more of a facilitator helping the student with material in areas that the student is interested in and has selected herself. It is meant to broaden the experience of gifted students. By enriching the gifted students' learning environment, the students will learn how to choose the right circumstances in which to take action and make a positive impact on themselves and society (Kirschenbaum, 1984).

Most gifted programs offer a combination of acceleration and enrichment. Enrichment offers advanced material at an accelerated pace, and accelerated curriculum provides students with enriching and broadening experiences in learning (Kirschenbaum, 1984).

Most of the emphasis in gifted and talented education is on intellectual and creative development (Roeper, 1982). But it is also important to include the emotional and social domains in programming for the gifted and talented (Betts and Neihart, 1985). Gifted children have the same basic emotional needs that other children have, but they also have needs which are unique to those who are gifted and/or talented (Galbraith, 1983).

Galbraith conducted a survey of over 400 gifted students from six states to determine what the social and emotional concerns of gifted and talented youth are. The most commonly identified difficulties, which he labeled "The Eight Great Gripes," are as follows:

1. No one explains what being gifted is all about--it's a big secret.

2. The stuff we do in school is too easy and it's boring.

3. Parents, teachers and friends expect us to be perfect, to do our best all the time.

4. Kids often tease us about being smart.

5. Friends who really understand us are few and far between.

6. We feel too different and wish people would accept us for what we are.

7. We feel overwhelmed by the number of things we can do in life.

8. We worry about world problems and feel helpless to do anything about them (Galbraith, 1985:16).

Betts (1985, 1986) established seven categories of curriculum development which are necessary for the emotional and social growth of gifted individuals. They include:

1. Awareness, understanding and acceptance of self.

2. Awareness, understanding and acceptance of others.

3. Interpersonal skills: a) communication skills; b) interviewing skills; c) discussion skills; and d) conflict reduction skills.

4. Group process and interaction skills.

5. Creativity: a) creative thinking and problem solving; and b) relaxation and visual imagery.

6. Problems of being gifted.

7. Nurturing environments and people (Betts & Neihart, 1985:18).

Gifted students need more than an emphasis on cognitive development. They need to feel good about their special abilities (Galbraith, 1985). The best approach is one that integrates cognitive, social, and emotional development (Betts & Neihart, 1985). As Passow states: "What is needed is total planning for the total experience of the gifted student" (1986:224).

PSYCHOSOCIAL DEVELOPMENT OF THE GIFTED

This section will look at psychosocial development. It must be kept in mind that the conclusions drawn only apply to those children who have been identified as gifted. They would not necessarily apply to those children who are gifted, but have never been identified.

Until the 1920's, scientists such as Francis Galton (1892) and William James (1902) thought there was a connection between high intelligence and mental and social instability. In 1925, Terman conducted a longitudinal study of 1,528 intellectually gifted children, in which he found his high IQ sample to be appreciably superior to ordinary children in physique, health, social adjustment, and mastery of school subjects. The remainder of this section will focus on current research dealing with psychosocial development of gifted children.

When looking at psychosocial maturity, there are several limitations in the research that must be considered. Janos and Robinson (1985) point out that researchers have considered only a few of the constructs and behaviors that contribute to psychosocial maturity, and have considered only a restricted segment of the age spectrum. They also state that studies of prosocial and moral behavior, emotional development, and interpersonal intimacy are sparse or nonexistent.

Most of the studies reviewed by Janos and Robinson (1985) have not been adequately replicated. However, the majority of the studies suggest that high

ability youngsters are slightly to substantially more mature than are unselected agemates. None of the studies suggest the opposite.

Janos and Robinson (1985) draw the following conclusions after reviewing the literature. There is consistent documentation that intellectually gifted elementary and high school students are superior to students not identified as gifted both in their ability to make certain kinds of social judgments and in play interests. Relationships that exist between IQ and other social maturity variables, including gender constancy, interpersonal problem solving, and perspective taking have also been documented. High IQ children are more likely to choose older children as friends, which indirectly suggests advancement in social maturity. Teacher reports of developmental data indicate that intellectually gifted children may be more comparable to agemates on variables tapping the emotional life, but self-reports of fears suggest that they may be more comparable to older children than to agemates. Cross-sectional studies of responses to personality inventories consistently find scores of intellectually gifted children to be more like those of older children than those of agemates not identified as gifted. The maturity measures are not as precise or reliable as intelligence tests, and are infused with cultural values to a greater degree. But the extent to which maturity accompanies high ability has a significant implication on whether to accelerate a child in school to meet his or her intellectual needs.

The next factor to be considered is psychosocial adjustment. Janos and Robinson define this as one's ability to operate effectively within and constructively beyond the structures imposed by the environment, to respond zestfully to challenge, and to maintain a high degree of relatedness, vitality, and personal satisfaction. (1985:156)

Common measures of psychosocial adjustment are self-esteem and personality inventories. Something to keep in mind when evaluating research in this area is that assessments of adjustment often reflect normative, age-related expectations. So children who are exceptionally mature or expressive may deviate significantly enough from age norms to be evaluated as poorly adjusted (Janos and Robinson, 1985).

Janos and Robinson also report that intellectually gifted preadolescent children tend to show average to superior adjustment. However, Blackburn and Erickson (1986) found that boys of primary school age are more likely than girls to experience developmental lags that interfere with the ability to succeed in the tasks required in a traditional educational atmosphere. The developmental lags could include visual motor development, verbal auditory discrimination, difficulty in screening excessive stimuli, and tendency to engage in physical activities. As a result, some gifted boys may develop a poor self-image as a learner, or may get labeled as difficult, immature, slow, or hyperactive.

The probability of observing adjustment problems may increase as gifted children enter adolescence (Janos and Robinson, 1985). During adolescence, any doubts about the reality of talent, its depth, and its acceptability among peers and adults has added impact and can lead to denial of a recognized ability (Buescher, 1985). For example, adolescent girls are faced with conflicting social messages about success. They are sometimes forced to choose between achievement and femininity (Blackburn and Erickson, 1986).

Gifted and talented adolescents are prone to being perfectionists. They sometimes expect more out of themselves than they can actually do. They sometimes have a lack of awareness of the limitations of their growing talents as they strive to improve the quality of their performance (Buescher, 1985).

Gifted adolescents are more aware of the repercussions of activities, and have learned to check out the advantages and disadvantages of certain activities

or opportunities. For example, taking an honors-level class may be considered risky because high success would be less predictable than in a regular class (Buescher, 1985).

Buescher (1985) also points out that adolescents with exceptional abilities get more criticism, direction, and support from family, friends, and teachers. This can create some conflicts if expectations of others are different from the adolescent's expectations and plans for herself or himself. Sometimes, intellectual advancement has become the main determinant of relationships with others. It is easy for the adolescent to feel not valued for herself or himself (Janos and Robinson, 1985).

Buescher (1985) indicates that, like all adolescents, gifted and talented adolescents are impatient. This, along with an exceptional talent, can make them intolerant of ambiguous, unresolved situations. The quest for and resolution of one's identity is an important goal for adolescents. The pressure of competing expectations (from self and others) and the inability to tolerate ambiguity combine to cause the gifted and talented to try to reach identity formation earlier. This can either lead to a premature career choice or limiting interests to a more narrow range.

McDowell (1984) found that gifted adolescents have an elevated sensitivity level and environmental awareness which can cause them to feel helpless, worried, and frustrated about problems in the world. They may be more likely to experience emotional problems because they more actively interact with their environment, thus increasing the chances for more conflict to occur.

When looking specifically at self-concept, several studies show that the majority of identified gifted children have self-esteems that are at the same level, or slightly above, or are satisfactory, when compared to those children not identified as gifted (Bartell and Reynolds, 1986; Janos, Fung, and Robinson, 1985; Colangelo and Pfleger, 1978; Lehman and Erdwins, 1981; Tidwell, 1980). However, the literature is not entirely consistent (Kelly and Colangelo, 1984). Subgroups such as the underachieving gifted come up with different results. In fact, a negative self-concept is a significant factor contributing to low academic achievement (Battle, 1982).

Coopersmith (1967) discusses different areas of self-esteem, including school-academic and social self-peers. Kelly and Colangelo (1984) discovered that gifted adolescents held significantly higher academic and social self-concepts, whereas McDowell (1984) reported a discrepancy between the social and academic self-concepts, with the social self-concept being lower.

Janos, Fung, and Robinson (1985) compared high-IQ children who conceptualized themselves as different from other children, to high-IQ children who did not think of themselves as different. The children who felt they were different had lower self-esteems (although they were not critically low), even though most did not report that difference in a negative manner. The researchers feel that these results suggest that many cognitively gifted children need increased psychological support if they are to optimize their personal and social development.

A concern about self-concept is important for gifted students since it has such an impact on both academic achievement (Battle, 1982) and on learning. Dean (1977) found that high self-esteem boys and girls showed significantly greater mastery of learning tasks than lower self-esteem children.

Janos, Fung, and Robinson (1985) offer further evidence that enhanced self-esteem has been observed in children enrolled in special programs (Coleman and Fults, 1982; Karnes and Wherry, 1981; Kolloff and Feldhusen, 1984; Maddux, Scheiber, and Bass, 1982).

Gifted populations are like those not identified as gifted in that positive adjustment in childhood tends to be associated with enhanced school achievement. Janos and Robinson (1985) feel there is a problem, however, because it is hard to separate the contributions of background and intelligence from adjustment. Additionally, there is a tendency for those identified as gifted to be more advantaged in socioeconomic status and educational opportunities and other resources. Most studies of intellectually superior college-age subjects show that there is favorable adjustment among those who are achieving at a high level. Gifted students who show undistinguished achievement would have more adjustment problems; however, this group has been largely ignored in the research (Janos and Robinson, 1985).

Janos and Robinson (1985) conclude that certain personality characteristics help in developing intellectual talents. Parent and teacher ratings and self-reports show repeatedly that intellectually gifted, high-achieving individuals at all ages exhibit the following characteristics: have broad and mature sets of interests, including depth in a few of them; work hard and continuously to overcome obstacles; have high standards of quality; are willing to wait for deferred rewards; and have the self-sufficiency necessary to pursue goals they find important. These characteristics appear to become stronger as the gifted grow older, and are most marked among those who emerge as successful young adults. These results can not be generalized to non-achieving gifted students.

Janos and Robinson (1985) also indicate that high achieving gifted students are more likely to attribute both positive and negative academic outcomes to factors within themselves rather than to factors beyond their control. Therefore, they feel that gifted students need the opportunity to establish and accomplish personally meaningful goals that can be attributed to their own efforts and unique abilities. The goal is for gifted students to feel responsible for their successes and to recognize and learn from their failures.

The authors continue by evaluating the literature concerning family factors of those children who have been identified as gifted. High levels of education, occupation, and income, and harmonious marital relationships are observed consistently among parents of intellectually gifted children, and they can predict the children's superiority on psychological and social variables such as creativity, interests, and psychological maturity. Parents who spend time with their children, facilitate their interests, answer their questions, and provide a warm, supportive base for intellectual exploration are likely to foster psychosocial maturity and adjustment. The previous characteristics are typical of the type of interaction parents of intellectually gifted children seem to offer.

When looking at student achievement and home environment, Janos and Robinson (1985) found that parents of high achievers tend to use more praise and approval, show more interest and understanding, report feeling closer to their children, convey a greater sense of belongingness, and identify more with their own parents. Mothers of high achievers also valued early independence in their children.

It should be stressed that these family factors are typically found only in those gifted and/or talented children who have been identified as gifted. These family factors would not necessarily be found among gifted children who have never been identified, or among underachieving gifted children.

Janos and Robinson conclude that intellectually gifted children report liking other children and enjoying play with them. In general, the peer relations of intellectually gifted children are satisfactory, although not necessarily superior to those of children not identified as gifted. One study (Miller, 1956) they looked at showed a preference of high IQ children for other high IQ children as friends. On the other hand, another study (Gallagher, 1958) showed very little tendency for high IQ children to choose high IQ children for friends (both studies were done on the same age group). Janos and Robinson

(1985) felt that the question of whether high intellectual ability makes it more difficult for people to feel socially at ease and establish compatible friendships has not been directly addressed. McDowell (1984) does feel it is beneficial for gifted peers to spend time with each other, and to discuss their unique problems.

SUBSETS OF THE GIFTED POPULATION

Generalizations made in the previous paragraphs apply differently to different subgroups of the gifted and talented population. Differences in the degree of giftedness, in creativity, in areas of cognitive strength, and in academic achievement all introduce important qualifications (Janos and Robinson, 1985).

Janos and Robinson report that the most highly intelligent and talented (an IQ of four standard deviations above the mean) are the most vulnerable. Many experience unusual emotional distance from or closeness to their parents. There are usually few children they can play with comfortably. Performance pressure is more severe for this group. Intense sensitivity and mental responsiveness is manifested in everything they experience. The high levels of sensitivity and empathy can become a burden. To alleviate an overload, the highly intelligent need to be taught that most other people will not see or feel what they do. Programs that have attempted to provide a match between ability level and educational challenge have reported evidence of psychological and social adjustment. Association with an intellectual peer of the same age is especially beneficial (Kline and Meckstroth, 1985).

Highly creative children are more likely to demonstrate behaviors which are often misinterpreted by school personnel (Safter and Bruch, 1981), especially those labeled as disruptive, attention seeking, and impulsive. Creative approaches to learning are often not rewarded by conventional schools. This can affect a child's performance. Characteristics of high creativity that do not necessarily overlap intellectual giftedness are independence of judgement, intuition, flexibility, tolerance for ambiguity, unconcern for social norms, and a firm sense of oneself as creative (Janos and Robinson, 1985).

A subgroup which differs greatly from the identified gifted and talented group is the underachieving gifted. Davis and Rimm define underachievement as "a discrepancy between the child's school performance and some index of his or her actual ability, such as intelligence, achievement, or creativity scores, or observational data" (1985:277). They feel that the underachieving gifted student represents one of society's greatest losses. The report, "A Nation at Risk," states that over half of the population of gifted students do not match their tested ability with comparable achievement in school (Blackburn and Erickson, 1986).

Both self-esteem and achievement are highly related, and are both essential variables in the educational process (Battle, 1982). Davis and Rimm (1985) report the primary characteristics of underachievers as low self-esteem. The low self-esteem leads to avoidance behaviors at school and home which can lead to deficient academic skills, poor study habits, peer acceptance problems, poor school concentration, and home and school discipline problems. McDowell (1984) discussed a study in which low self-esteem coupled with social management problems were experienced by a majority of the underachieving gifted students.

Dowdall and Colangelo (1982) listed other characteristics of gifted underachievers--more instances of social immaturity, higher incidence of emotional problems, more anti-social behavior, higher incidence among boys, more likely to be from an unstable family, and more likely to be from an undesirable home environment.

Underachievement is a learned behavior. It can be taught by families,

schools, or cultures (Davis and Rimm, 1985). Gifted students are continually told that they can become anything they wish and that they can always do better. This leaves them with a feeling that they never can achieve all that they are capable of achieving (Perrone, 1986). Underachieving gifted children find themselves in set patterns of behavior by upper elementary school which can result in years of learning at a level much lower than their ability (Safter and Bruch, 1981). This level may be high enough that they appear to be an average learner, which is why they are sometimes never identified.

Several reasons have been proposed for the failure of gifted students to achieve their potential. Blackburn and Erickson (1986) discuss basic personality and social problems that have been present from a very early age, such as low self-esteem, external locus of control, and negative, antisocial, self-defeating attitudes. Zuccone and Amerikaner (1986) feel the above problems are symptomatic of and symbolic of disturbances in overall family functioning. These disturbances could be due to poor or inconsistent discipline methods, unhappy home atmosphere, parents who are rigid and controlling, or inappropriate expectations from parents (Janos and Robinson, 1985). Further, a lack of differentiation between parental and child family subsystems, poor family communication, parental relationship difficulties, family conflict, or a low level of family functioning can contribute to behavioral disturbances (Zuccone and Amerikaner, 1986). Other possible family factors are parent overprotection, authoritarianism, excessive permissiveness, and inconsistencies between parents (Davis and Rimm, 1985).

Blackburn and Erickson (1986) believe that another source of underachievement may be related to the pressures to conform placed on the gifted, independent, divergent thinker. Some gifted students are not willing to complete the activities included in most school curriculum, especially those that emphasize convergent thinking and rote memory. Rather than conform, they may reject school programs. This apathy and underachievement can lead to social withdrawal, anti-social behavior, delinquency, and mental illness. Some gifted students hide their talents and blend into the average group. This can result in boredom with school and contribute to the large drop-out rate in high school.

Other deficiencies at school besides dull and meager curricula are excessive emphasis by institutions on grades, external evaluation, petty rules, and teachers' disbelief in a child's competence (Blackburn and Erickson, 1986). Davis and Rimm (1985) also discuss the role that both inflexible and/or competitive classrooms play in nurturing underachievement. Underachievement can be a form of social self-defense because of strong cultural or peer identification, or sex-role expectations (Dowdall and Colangelo, 1982).

These difficulties of underachieving intellectually gifted children have been known and unsuccessfully dealt with for years. Some researchers have suggested a family systems approach (Zuccone and Amerikaner, 1986); while others feel multiple interventions simultaneously focusing on altering the structure of the school system and the patterns of family interaction are needed (Janos and Robinson, 1985).

Dowdall and Colangelo (1982) believe that programs need to be initiated in the early grades in order to have an impact. By looking at the research, they determined that interventions for underachieving gifted students can be grouped into two general areas. The first area is intensive counseling, in which there has only been limited success. Most of the researchers in this area (Doyle, Gottlieb, and Schneider, 1979; Khatena, 1982; Raph, Goldberg, and Passow, 1966) stressed the need for specially trained counselors and very long-term counseling. The other type of intervention is modifying or altering the classroom environment which has also shown little success. One of the reasons for the lack of success has been that the intervention is not initiated until high school. Underachievement with gifted students usually begins in the elementary school

years, and once the pattern is set, the probability for meaningful change is small. Dowdall and Colangelo (1982) believe that a focus on early identification, family involvement, and long-term commitment is the solution.

Over the past fifteen years, Stanley and his colleagues have been studying mathematically and verbally precocious children (Stanley, Keating, and Fox, 1974). Several thousand junior high school aged children drawn from regional and national talent searches have been given aptitude tests and questionnaires, and then retested, to look at their educational development. Their findings were very similar to those of the Terman studies (which occurred 50 years previously); however, the differences between boys and girls on math talent were not apparent until college in the Terman sample, but were evident in the Johns Hopkins samples by junior high school (Eccles, 1985). The Johns Hopkins team has consistently found gifted girls to be less likely than gifted boys to enroll in accelerated or special programs (Benbow and Stanley, 1982), less likely to respond positively to an invitation to join a gifted program (George and Denham, 1976), and less likely to enter college early (Stanley, 1976). Girls who were enrolled in the Johns Hopkins summer enrichment courses were less likely to remain on an accelerated math track (Fox and Cohn, 1980), and expressed less interest in majoring in science or engineering (Benbow and Stanley, 1984). These differences existed despite the fact that these girls did just as well as the boys in their high school math and science courses (Eccles, 1985).

Gifted females have a different educational and career outcome from what would be expected. They experience conflict between sex-role stereotypes and expectancies, and career (including nontraditional career) choices. There can be uncertainty concerning the balance of family and career (Safter and Bruch, 1981).

Gifted women are less likely to have a professional career than their male peers. Those who do choose to have a professional tend to select occupations that have lower status, require less education, are more compatible with family time schedules, and make fewer demands on one's off-the-job time and on one's own family. It is likely that social forces and personal beliefs have a large influence on the sex-differentiated educational and vocational patterns of gifted individuals. Although institutional barriers and discriminatory practices account for some differences, psychological processes are also important (Eccles, 1985).

Gifted females need to be able to make wise career decisions in terms of both their personal development and their future financial autonomy (Eccles, 1985). Not only would society benefit, but also the women, both personally and financially, given the instability of marriage as a primary means of financial support for women and their children.

Eccles (1985) states that gender role beliefs and schema seem to be important influences in that they affect both expectations for success and the subjective value individuals place on their pursuits. She further states that the beliefs and behaviors of parents, teachers, counselors, and peers are also important. These socialization agents appear to lack confidence in gifted girls' ability or motivation to succeed at demanding educational programs. Eccles concludes that gifted girls should have the opportunity to get the information and education that is available, plus be actively encouraged to develop non-traditional roles, given the omnipresence of gender role prescriptions regarding appropriate life choices for females.

EFFECTIVENESS OF GIFTED PROGRAMS

The Marland Report (1972) cited thirty studies in which all but one provided overwhelming evidence of beneficial results from special programs for the gifted. A study by Simpson and Martinson (1961) conducted in California of 929 gifted students discovered that those in special programs made significantly

greater gains in academic achievement than those in regular classes.

Another study compared the achievement of gifted high school students who previously were enrolled in a special science program with achievement of gifted students who were not enrolled. Those enrolled in the special program exceeded those not enrolled in grade point averages, academic honors, and scholarship (Alexakos and Rothney, 1967).

Davis and Rimm (1985) discuss evidence that is more logical than scientific. They cite Gowan (1978), who pointed out that almost every outstanding professional athlete received special attention, equipment, and training as a youth. It follows that special attentionand cultivation of talent in other areas should produce outstanding professionals in areas such as arts, sciences, and business.

Another comparison study (Tremaine, 1979), contrasted gifted high school graduates who had participated in special programs with those of gifted graduates who had not participated in special programs. She found no significant difference in IQs between the two groups. The grade point averages of the enrolled gifted were significantly higher than the unenrolled. The enrolled gifted were more likely to enroll in advanced, more difficult classes. The enrolled gifted had significantly higher SAT scores in both verbal and math areas. The enrolled gifted won significantly more scholarships and awards than the unenrolled. Significantly more of the enrolled gifted planned to attend college and to attend for more years. The enrolled gifted had higher educational goals, more regard for high school and teachers, and were more involved in school activities. Both groups were equally involved in community projects, had numerous and varied friends, and voiced equal respect for their peers.

Tremaine concludes the study

> provided no data to support the contention that gifted programs breed elitism, snobbery, indifference, conceit, or any other negative quality. On the contrary, ... the study leads to the conclusion that gifted programs do indeed make a difference--and that difference makes program development and participating vitally worthwhile (1979:517).

Tuttle and Becker state that

> the gifted and talented in schools today are our country's greatest resource. They are the probable leaders of our society in the future. To permit these individuals to be of maximum service to society, educational programs are needed which allow them to enter productive stages earlier and which encourage meaningful productivity throughout the educational process (1983: 12-13).

GIFTED PROGRAM SUMMARY

There is an emerging consensus that the following elements are relevant for programs for the gifted:

1. Differentiated education or services beyond those normally provided by the regular classroom.

2. Early intervention.

3. Multi-dimensional and varied identification procedures.

4. Focus on specific talents, not limited only to a focus on high general abilities across all areas.

5. Meet cognitive intellectual, creative, and talented needs within the fine arts and other areas.

6. Individually designed for each student.

7. Interaction with intellectual peers.

8. Interaction with gifted and/or talented adult role models.

9. Emotional and social adjustment needs are met.

10. Psychological support to aid in realizing potential.

These elements are the basis for College Studies For The Gifted Program at Fort Hays State University, and this is why, in large part, the program was recognized as a national meritorious program by the U.S. Department of Education. Because the College Studies for the Gifted Program has demonstrated educational significance, transportability, and cost-effectiveness, the program was selected by the U.S. Department of Education National Diffusion Network (NDN) Joint Dissemination Review Panel (JDRP) in 1987 as a developer/demonstrator program, charged with disseminating the program to all fifty states and three United States territories.

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SECTION II. TOWARD A NATIONAL DATA BASE

GIFTED IDENTIFICATION ISSUES

FORT HAYS STATE UNIVERSITY PROGRAM DATA

FORMS FOR THE CREATION OF A NATIONAL DATA BASE

GIFTED IDENTIFICATION ISSUES

Gifted and talented is defined in a number of ways as was discussed in earlier sections. Generally, giftedness includes those with exceptionally high IQs, those who have creative talents, and/or those who achieve highly on one or both dimensions (Sattler, 1982). It seems to follow that high scores on intelligence, achievement, or creativity tests indicate special abilities or skills (Davis & Rimm, 1985).

Sattler (1982) states that some of the confusion concerning definitions of intelligence and ways of measuring intelligence comes from our failure to understand that intelligence is an attribute, not an entity, and that intelligence is the summation of the learning experiences of the individual. Wesman (1968) goes on to discuss that we too often behave as though intelligence is a physical substance, when actually it is no different than attributes like beauty, or speed, or honesty. All of these attributes, including intelligence, can be applied to objects, performances, and/or behaviors, and can be measured. But it is the objects, performances, and/or behaviors that are being measured, not the sum total of the particular attribute.

Lutey and Copeland (1982) discuss the misconception that tests are quantitative. They point out that numbers are assigned to performance as a matter of convenience to be more objective, although the characteristics themselves are more qualitative.

Sattler (1982) points out that the assessment process should never focus exclusively on just a score because children have a range of abilities which should be evaluated by using both qualitative and quantitative means. Sattler lists the following guidelines that should be followed whenever using intelligence and special ability tests:

1. Tests are samples of behavior.

2. Tests do not reveal traits or capacities directly.

3. Tests purporting to measure a particular ability or skill should have adequate reliability and validity.

4. Test results should be interpreted in light of the child's cultural background, primary language, and handicapping conditions.

5. Test scores and other test performances may be affected by temporary states of fatigue, anxiety, or stress; by basic disturbances in personality; or by brain damage.

6. Tests purporting to measure the same ability may provide different scores for that ability.

7. Test results should be interpreted in relationship to other behaviors and to case history information; test results should never be interpreted in isolation.

8. Test results are dependent on the child's cooperation and motivation (Sattler, 1982:3-4).

Sattler concludes that tests are tools which can be useful for accomplishing goals, and their effectiveness depends on the knowledge and skill of those who administer them.

The methods which are currently used in identification of the gifted and/or talented are the following: individual and group intelligence tests, teacher nomination, previous accomplishments, creativity tests, achievement tests, parent nominations, peer nominations, self-nominations, and rating scales (Sattler, 1982; Davis and Rimm, 1985).

Intelligence tests are the most preferred method in selecting gifted children with superior cognitive abilities. It is commonly thought that an IQ test measures the child's potential. But it is actually a test of what the child has learned, and describes how a person is doing at the present time (Davis and Rimm, 1985; Wesman, 1968; Sattler, 1982). Lutey and Copeland (1982) point out that there is a strong possibility that IQ tests do assess intelligence of subjects in the white middle class. But the tests can also be assessing motivation, anxiety, limited educational background, or lack of familiarity with a particular type of task, rather than intelligence.

There is an emphasis on verbal material and the use of middle-class English in the more commonly used IQ tests such as the Stanford-Binet or those in the Wechsler series, which handicaps those with less verbal abilities, those who are bilingual, or those who do not use middle-class English. Some tests also depend on speed, which is unfair to those who work in a slow methodical way. Some cultures do not value speed, so a child has never functioned in that way, and is penalized on the test. One way to overcome some of these types of problems is to look at the overall IQ, but, in addition, to look at scores on various components of the test (Lutey and Copeland, 1982).

There are also many individual items which are culturally biased on IQ tests. In California, there was a court case (Larry P. vs. Riles) in which the court found that the tests were culturally biased against black children. It is important for a test to have validity for each discrete group for which they will be used. Standardization samples that include minority groups but which do not yield separate norms for each race, ethnic group, or socio-economic disadvantaged group are not as valid as using norms for the particular group of which the person being assessed is a member (Bersoff, 1982).

Lutey and Copeland (1982) point out that the scores are not absolute. They are relative and derive their meaning only from a comparison with the average of scores made by others. So an IQ score is not only a measure of what the child knows at that time, but how what the child knows compares to a group of other children who are in the standardization group. The standardization group should represent the population in the makeup of factors such as race, socio-economic background, and ethnic background. If the majority of the standardization group is white and middle class, even if minority children are included in the standardization group, that is what the child being evaluated would be compared to. That is why it is important to be aware of the standardization of a particular test being used.

Lutey and Copeland (1982) also discuss that small differences between scores are not significant. Such differences are more likely accounted for by errors of measurement. A score is actually a point surrounded by a range of scores within which the true score probably falls. For example, an IQ of 128 with a standard error of 7 means that the child's true IQ falls somewhere in the range of 121 and 135. But a lot of gifted programs turn down a child with an IQ of 128 $\pm$ 7, even though the child's true IQ could be as high as 135.

Sattler concludes that it is important to realize that intelligence tests can not be separated from the social order of our society which values academic excellence over other kinds of excellence. Our intelligence tests which can predict success in school are value-laden. They represent societal values such as schooling, verbal abilities, and abstraction and concept formation skills which are important in Western society (Sattler, 1982).

One advantage of IQ tests, both individual and group, is that they are more likely to identify some underachieving gifted, although those who became underachievers at an early age would probably still be missed (Davis and Rimm, 1985).

Group intelligence tests are often used in identifying gifted students because they are routinely administered in many schools. However, they are less reliable and less valid than individual tests. Motivation and speed play a larger role in performance. The tests are mainly verbal which biases them against children who are nonverbally gifted. They provide lower IQs than individual IQ tests, and are also unreliable at high IQ levels (Davis and Rimm, 1985).

Achievement tests are used to measure specific academic talent. They are like IQ tests in that they produce scores which are based on national norms. They also have many of the same problems that IQ tests have in that some minorities, culturally disadvantaged, and socio-economically disadvantaged are not properly represented in the standardization sample. They are also culturally biased and are based on middle-class English (Lutey and Copeland, 1982).

Two other groups that can be missed with achievement tests are the underachieving gifted and the creatively gifted. Part of being an underachiever is not achieving in school which would result in lower scores on an achievement test. Also high creativity does not mean high achievement (Davis and Rimm, 1985).

Most schools routinely administer achievement tests and this is why they are used as an initial screening process for identifying gifted children. However, they often miss gifted children who are culturally different, economically disadvantaged, underachieving, and/or highly creative (Davis and Rimm, 1985).

Wesman (1968) points out that intelligence and achievement tests both measure what the child has learned. The only difference is in the purpose of the test. An achievement test is used to discover how much a student has learned in a particular area, where an IQ test discovers how much learning has occurred over broad areas of environmental exposure. He concludes that they do not measure different abilities. They are just attending to different criteria.

Teacher nominations are one of the most widespread methods used, but are not that effective. They are less valid than IQ scores, achievement scores, parent nominations, or peer nominations (Davis and Rimm, 1985). They are successful about 45% of the time in identifying gifted children (Sattler, 1982).

Creativity tests can be used to identify creative students whose unique talents are not visible in many classrooms. But creativity is even harder to measure than intelligence. Creativity is a complex ability that can take innumerable forms. Various creativity tests do not correlate highly with each other so scores from a single test can be misleading. It is highly recommended to use at least two criteria of creativeness (Davis and Rimm, 1982).

Parent nominations tend to be more valid than teacher nominations, but they are not used very often. Some parents do over-estimate their child's talents, but they are the best source of information about the child at an early age (Davis and Rimm, 1982).

Peer nomination is another under-utilized method. Peers are extraordinarily good at nominating gifted and talented students, especially gifted minority and culturally different children (Davis and Rimm, 1985). Self-nomination is also a method which can be used. Some students may have strong interests and talents, but nobody asks them. Teachers may be unaware of the talent, creativity, and high motivation. It is especially recommended at the junior and senior high school levels, where peer pressures may cause youths to

mask their special talents (Davis and Rimm, 1985).

Another index of ability is the quality of work the student has done or is doing. If a student does not take tests well, but produces outstanding work, that could help identify the student as gifted. It is helpful to use more than one rater, since teacher variation in judgements of products would need to be considered (Davis and Rimm, 1985).

Rating scales are also used in identifying the gifted and/or talented student. Rating scales can be used in conjunction with the teacher-, parent-, peer-, and self-nomination procedures and product evaluations. They can also be used to evaluate characteristics of intellectual ability, creativity, motivation, and leadership. They can provide structure and quantification (Davis and Rimm, 1985).

Each of the methods has possible problems and shortcomings which must be considered. This is why a single method should never be used to identify gifted and/or talented students. A reliance on a single measure will cause many gifted children to be overlooked (Davis and Rimm, 1985) or some to be too highly rated.

Each of the various methods discussed can measure particular aspects of intelligence. But the only method which could completely measure intelligence is one in which sampling from every domain in which learning has occurred takes place. This would clearly be a monumental, if not impossible, task (Wesman, 1968).

It should also be realized that intelligence is differently comprised in every individual, since intelligence is the sum total of all the learning experiences a person has uniquely had up to any moment in time (Wesman, 1968). This is why a multidimensional procedure, which is flexible and includes both objective and subjective measures, should be used (Davis and Rimm, 1985).

Identification procedures must be related to one's definition of giftedness and to the goals of the program (Davis and Rimm, 1985). The CSG program is designed to meet the needs of all types of giftedness, not just academic giftedness.

One advantage of CSG is the flexibility of the entrance requirements. The program accepts those who have been identified as gifted by their schools; however, it will also accept those who have excellent high school transcripts (those high achievers that do not necessarily have an IQ of 130 or above); those who have IQs at or above 130, but have low achievement scores; those whose overall IQ is below 130, but one component (for example, the performance or verbal score on the WISC-R) is in the superior range; those who are average students, but have a strong interest in and aptitude for a particular area and are recommended by a teacher or counselor; those that have an IQ within the standard error of range of 130 (for example, a score on an IQ test of 127 $\pm$ 7); and those students who may or may not have a high IQ and/or achievement, but are highly creative and talented.

To help identify the creative and talented student, the CSG program has made special provisions. A potential student is screened and appraised by instruments designed to target potential creative and talented students.

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PRELIMINARY DATA ON COLLEGE STUDIES FOR THE GIFTED
PARTICIPANTS AT FORT HAYS STATE UNIVERSITY

In this section, evidence will be presented about the program's effectiveness, its impact on changes in student's perceptions, and the grades achieved by students. The data in this section were obtained from a study that was conducted in 1985.

DESCRIPTION OF POPULATION. There were 31 gifted students between the ages of 8-17 that were studied. There were 18 males and 13 females. All were from Kansas except for one male from South Korea and one male from Idaho. All were enrolled in their respective elementary and high schools for the 1985-1986 school year as well as FHSU.

MEASUREMENT. The interview instrument, "College Studies for the Gifted: Interview with the Student," was developed by Anna Luhman, program developer and director. This questionnaire was developed to reflect problem areas identified through research and experience in gifted education. The interview protocol included the following cluster of items: a.) attitude toward school and learning; b.) self-esteem/self-concept; c.) level of academic motivation and boredom; and d.) personal goal-setting. Each cluster had 1 to 5 items. Each item was rated on a 1 to 7 basis with desired end point being 1 or 7, depending on the nature of the question. As an indication of stability, the average test-retest correlation for the 19 items was .8704.

DESIGN. The design consisted of a pre- and post-treatment interview questionnaire/protocol administered by the CSG director on the students in the sample.

DATA COLLECTION. All interviews were administered by the program director in a one-on-one setting. The pre-tests were administered to the students during the week immediately preceding their participation in courses in the 1985 summer and fall sessions at Fort Hays State University. The post-test was administered at the end of the 1985 fall semester. (The post-test was administered to the two students from South Korea and Idaho at the end of the summer session.)

ANALYSIS. Data were subjected to a two-tailed T-test.

Students tested showed a statistically significant positive change in 14 of the 19 questions. There was no statistically significant change in the remaining five questions.

PRELIMINARY RESULTS. The following tables highlight the areas of significant change.

It is generally assumed that gifted students will attain high levels of intellectual growth on their own. In this study, it is hypothesized that gifted students tend to be underachievers and develop a dislike for school without proper academic educational experiences. The items reported in Table 1 reflect a change in the direction of a more favorable attitude toward school and learning.

TABLE I. Attitude Toward School and Learning

	Item Abbreviated	Pre-Test Mean	Post-Test Mean	Change	T-Value
1.	Liking School	4.39	5.29	-0.90	-6.74***
2.	Interest in School Curriculum	3.87	4.77	-0.90	-7.18***
3.	Choice of Subject	3.50	4.47	-0.97	-4.07***
18.	Verbal Self-Expression	5.42	5.87	-0.45	-4.03***
19.	Written Self-Expression	5.10	5.55	-0.45	-3.10**

*p>.05; **p>.01; ***p>.001

When afforded the opportunity for advanced academic courses, students who participated in the CSG program reported more favorable attitudes toward school and learning.

A second hypothesis is that gifted students experience negative self-esteem, which is fostered and exacerbated by involvement in conventional academic settings. It is further assumed that change in the direction of the development of positive self-esteem can be expected in an academic environment more compatible with the gifted students' interests and abilities.

TABLE II. Self-Esteem/Self-Concept

	Item Abbreviated	Pre-Test Mean	Post-Test Mean	Change	T-Value
6.	Openness of others' Ideas and Feelings	5.42	5.90	-0.48	-3.50**
8.	Self-Esteem	5.23	5.71	-0.48	-3.72***
9.	Change in Self-Esteem	4.84	5.68	-0.84	-4.82***

*p>.05; **p>.01; ***p>.001

The data in Table II appear to support the assertions stated above. Items 8 and 9 especially indicate a change in the direction of a more positive self-image.

A third hypothesis in the study is that gifted students in conventional academic settings tend to be marked by boredom and lack of motivation which results in underachievement. It is assumed that these feelings are a major contributing factor to the relatively high dropout rate among gifted students.

TABLE III. Boredom and Motivation

	Item Abbreviated	Pre-Test Mean	Post-Test Mean	Change	T-Value
7.	Boredom	5.03	4.42	-0.61	3.14**
10.	Challenge	5.13	5.81	-0.68	-4.77***
13.	Self-Starter	4.42	5.29	-0.87	-7.84***
14.	Motivation	4.90	5.32	-0.42	-3.24**

*p>.05; **p>.01; ***p>.001

The data in Table III reflect a change in the direction of decreased boredom and a higher degree of motivation, lending support to the assumption that gifted students are challenged by and respond positively to an academically challenging educational environment.

The fourth hypothesis is that gifted students are more apt to develop self-discipline and engage in goal-setting in academically challenging rather than in conventional academic settings.

TABLE IV. Goal-Setting and Self-Discipline

	Item Abbreviated	Pre-Test Mean	Post-Test Mean	Change	T-Value
15.	Change in self-Discipline	4.97	5.90	-0.93	-3.24**
16.	Goal Setting	5.48	5.97	-0.49	-4.31***

*p > .05; **p > .01; ***p > .001

The data in Table IV support the hypothesis that involvement in an academically challenging environment promotes goal-setting and self-discipline on the part of gifted students.

SUMMARY

The data presented above support the basic assumption on which the CSG is founded--that gifted students in an academically challenging environment will exhibit characteristics valued by educators. The characteristics in focus in this study are positive attitudes toward school and learning, positive self-esteem, enthusiasm and a high level of achievement and motivation, and goal-setting behavior and self-discipline. Further research is obviously needed, but these preliminary results are definite indications of the viability of university-based programs for gifted students.

From the Summer of 1980 to the Fall of 1985, gifted students participating in the CSG Program have completed 3,958 credit hours with a cumulative GPA of 3.25 (on a 4.0 scale) in their college courses.

Considering the fact that the national high school dropout rate among gifted students is estimated to be 24%, it is important to note that the students in the CSG not only graduated from high school, but 100% of them have entered college.

Additional data in the form of letters and other written comments from parents, students, and teachers were also collected. The data from these sources also indicated very positive attitudes toward the CSG program; however, they are not included here primarily because of space consideration.

CREATING NEW COLLEGE STUDIES FOR THE GIFTED PROGRAMS AND ESTABLISHING A NATIONAL DATA BASE

The data analysis in the preceding section provides some interesting, even intriguing results; however, the base is small and is drawn from only one program in one institution. One of the goals of the National Diffusion Network is to promote the establishment of a national data base that will allow the following trend comparisons: program-to-program, program-to-state, program-to-region, program-to-nation, state-to-state, state-to-region, state-to-nation, etc.

To facilitate this data collection process and to assure some standardization, a series of instruments/reporting forms have been developed by CSG as the NDN Developer/Demonstrator Program. These instruments/reporting forms are presented in the following section. They will greatly facilitate the task of initiating gifted programs and organizing the data base.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

TEACHER APPRAISAL

GENERAL CHECKLIST FOR RECOMMENDING GIFTED, TALENTED, AND CREATIVE STUDENTS

_____ (Student's Name); _____ (School); _____ (Grade);

_____ (Teacher's Name); _____ (Signature).

Directions: Place an X in the space beside each question which best describes the pupil.

YES	SOMETIMES	NO		
___	___	___	1.	Is very secure emotionally.
___	___	___	2.	Is venturesome, anxious to do new things.
___	___	___	3.	Tends to dominate peers or situations.
___	___	___	4.	Has confidence in self.
___	___	___	* 5.	Resourceful--can solve problems by ingenious methods.
___	___	___	* 6.	Creative in thoughts, new ideas, seeing associations, innovations, etc. (not artistically).
___	___	___	7.	Frequently interrupts others when they are talking.
___	___	___	8.	Frank in appraisal of adults.
___	___	___	* 9.	Has mature sense of humor (puns, associations, etc.)
___	___	___	*10.	Is inquisitive.
___	___	___	11.	Is eager to tell others about discoveries.
___	___	___	*12.	Can show relationships among apparently unrelated ideas.
___	___	___	13.	Shows excitement in voice about discoveries.
___	___	___	*14.	Has a tendency to lose awareness of time.

Note: Asterisked items are key predictors to the success of students in a College Studies for the Gifted Program. Candidates lacking several or most of these characteristics have lower success rates.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

POST-TEST INTERVIEW WITH THE STUDENT

Name _____; Grade _____; Age _____;

School _____; Address _____.

On a level of 1-lowest, 7-highest, rate your answer to the following questions:

1.	Do you like school?	1 2 3 4 5 6 7
* 2.	Are your areas of interest covered within the curriculum of your school?	1 2 3 4 5 6 7
3.	Do you have a wide choice of subject areas to choose from in your high school curriculum?	1 2 3 4 5 6 7
* 4.	Does your "giftedness" affect your ability to get along with your peers?	1 2 3 4 5 6 7
* 5.	Does your "giftedness" affect other people's ability to get along with you?	1 2 3 4 5 6 7
* 6.	Does your "giftedness" leave you open to accept and respond to the ideas and feelings of others?	1 2 3 4 5 6 7
* 7.	Do you often experience boredom?	1 2 3 4 5 6 7
* 8.	Do you believe you have a positive self-esteem?	1 2 3 4 5 6 7
9.	Is your self-esteem moving forward in a positive way?	1 2 3 4 5 6 7
10.	Do you see life as a challenge?	1 2 3 4 5 6 7
11.	Do you believe classes at the college level will help you use your "giftedness"?	1 2 3 4 5 6 7
*12.	Do you believe you will be able to achieve at a higher level through these college classes than at the regular high school level?	1 2 3 4 5 6 7
*13.	Are you a self-starter?	1 2 3 4 5 6 7
14.	Are you highly motivated?	1 2 3 4 5 6 7
15.	Are you moving forward in developing the skill of self-discipline?	1 2 3 4 5 6 7
16.	Do you set goals for yourself?	1 2 3 4 5 6 7
17.	Do you like to read?	1 2 3 4 5 6 7
*18.	Are you able to express yourself in a verbal manner?	1 2 3 4 5 6 7
*19.	Are you able to express yourself fluently in writing?	1 2 3 4 5 6 7

20. Explain why you feel the College Studies for the Gifted Program may have been of help to you.

21. Do you believe the College Studies for the Gifted Program met your expectations?

22. Do you have a plan for your life? Briefly describe it.

23. Do you feel that any change occurred in your positive or negative attitudes toward yourself after participating in the College Studies for the Gifted Program? If so, how?

24. Do you feel that any change occurred in your positive or negative attitudes toward others after being in the College Studies for the Gifted Program? If so, how?

Note: Permits pre- and post-test analysis on items 1-19. Items 20-24 treat personal and program evaluation.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

INTERVIEW WITH THE UNIVERSITY CLASSROOM STUDENTS

Name _____; Class _____; School _____.

Using 1-lowest, 7-highest, circle the number appropriate to answering the question:

1.	I believe that the mix of gifted high school and junior high students in the regular college curriculum is a benefit to the university environment.	1 2 3 4 5 6 7
* 2.	I believe the presence of the gifted students stimulated the class.	1 2 3 4 5 6 7
* 3.	I believe that I benefited from having these gifted students as classmates.	1 2 3 4 5 6 7
* 4.	I felt somewhat threatened by the gifted students in the class.	1 2 3 4 5 6 7
* 5.	I am receptive to the ideas generated by these gifted students.	1 2 3 4 5 6 7
6.	The ages of the gifted students in the class did hinder my acceptance of their intellectual abilities.	1 2 3 4 5 6 7
7.	I feel the presence of the gifted in the class had a generally positive influence on the class as a whole.	1 2 3 4 5 6 7
8.	I feel that more gifted students should take college classes.	1 2 3 4 5 6 7
* 9.	I believe the regular classroom students and the gifted students in the class worked well together.	1 2 3 4 5 6 7
*10.	The gifted students' emotional maturity levels were a detriment to their ability to function in the classroom.	1 2 3 4 5 6 7
11.	I communicated well with the gifted students in the class.	1 2 3 4 5 6 7
12.	The gifted students worked well with the rest of the class.	1 2 3 4 5 6 7
13.	I believe that I benefited from having the gifted students in the class.	1 2 3 4 5 6 7
14.	I believe that the gifted students need the challenge offered by the college classroom.	1 2 3 4 5 6 7
15.	I would like to have gifted students in my class again.	1 2 3 4 5 6 7
*16.	I feel that even without special programs, gifted students will make it on their own.	1 2 3 4 5 6 7

1. How might we improve the College Studies for the Gifted program for the benefit of all involved?

Note: Asterisked items are key predictors of university student positive experiences with gifted students in their classes.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

INTERVIEW WITH THE FACULTY

Name _____; Discipline _____; School _____.

Using 1-lowest, and 7-highest, circle the number appropriate to answering the question:

1.	I am receptive to the intellectual needs of gifted students.	1 2 3 4 5 6 7
* 2.	I understand that gifted students have special emotional needs which make it necessary to work closely with them.	1 2 3 4 5 6 7
* 3.	I believe that we on the college level can help the gifted students from the secondary schools who have special needs that can't be met in the regular classroom.	1 2 3 4 5 6 7
4.	I believe that (your school) has a unique opportunity to provide for the needs of gifted students.	1 2 3 4 5 6 7
5.	I believe that the mix of gifted students in the regular college classroom is of benefit not only to the gifted student but to others in the class as well.	1 2 3 4 5 6 7
* 6.	I am open to the ideas and opinions expressed by these gifted students.	1 2 3 4 5 6 7
7.	I believe that the social development of gifted students is facilitated by interacting with their mental peers.	1 2 3 4 5 6 7
8.	I believe that if students can feel good about what they are doing, they will have an improved self concept.	1 2 3 4 5 6 7
* 9.	I like these bright students.	1 2 3 4 5 6 7
*10.	I feel that the average professor is somewhat threatened or intimidated by the gifted students in their classes.	1 2 3 4 5 6 7
11.	I believe the College Studies for the Gifted experience is good for the gifted student.	1 2 3 4 5 6 7
12.	I believe that College Studies for the Gifted can help the high schools to meet the needs of their students.	1 2 3 4 5 6 7
13.	I believe that College Studies for the Gifted can increase the motivational level of the gifted student.	1 2 3 4 5 6 7
14.	I believe that I can benefit from having gifted students in my classes.	1 2 3 4 5 6 7
15.	I believe that College Studies for the Gifted is a step in the right direction.	1 2 3 4 5 6 7
*16.	I feel that even without special programs, gifted students will make it on their own.	1 2 3 4 5 6 7

17. In what ways do you feel the college studies program for the gifted will or will not be of benefit to these students?

18. Do you believe the program should continue?

19. How do you feel that the program affected your teaching style or approach?

20. Did you alter your teaching approach in any way with the gifted students in the classroom?

21. How do you view your role as a professor of the gifted?

22. Has the view of your role changed since having these students in your class?

23. What do you see for the future of (your school's) College Studies for the Gifted?

Note: Asterisked items are the key predictors of faculty receptivity to having gifted students in their classes and of a faculty willingness to work with these students.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

INTERVIEW WITH THE PARENTS

Your name _____; Your child's name _____;

School _____; Address _____.

Using 1-lowest, and 7-highest, circle the number appropriate to answering the questions:

1.	My child likes school.	1 2 3 4 5 6 7
* 2.	Our school district has a positive attitude toward gifted education.	1 2 3 4 5 6 7
* 3.	The faculty in our school district has a positive attitude toward gifted education.	1 2 3 4 5 6 7
4.	The students in our school district have a positive attitude toward their gifted peers.	1 2 3 4 5 6 7
5.	The school district was in favor of our child's entrance into College Studies for the Gifted.	1 2 3 4 5 6 7
6.	My child has no problem with negative attitudes.	1 2 3 4 5 6 7
7.	I have no problem in dealing with the negative attitudes expressed by others.	1 2 3 4 5 6 7
* 8.	I believe College Studies for the Gifted had a positive influence on my child.	1 2 3 4 5 6 7
* 9.	College Studies for the Gifted increased my child's self-esteem.	1 2 3 4 5 6 7
10.	When my child completed the College Studies for the Gifted, I felt this program enhanced my child's ability to achieve his or her potential.	1 2 3 4 5 6 7
11.	College Studies for the Gifted has shown my child that there is nothing "wrong" in being gifted.	1 2 3 4 5 6 7
12.	I help my child set goals for himself.	1 2 3 4 5 6 7
13.	I relate well to my gifted child.	1 2 3 4 5 6 7
14.	My gifted child relates well to me.	1 2 3 4 5 6 7
15.	My gifted and non-gifted children get along well.	1 2 3 4 5 6 7
16.	A parenting class to help us overcome sibling conflict between our gifted and non-gifted children would be helpful.	1 2 3 4 5 6 7
17.	Participating in College Studies for the Gifted puts a strain on the family budget.	1 2 3 4 5 6 7

*18. I support my child in the achievement of his or her goals. 1 2 3 4 5 6 7

19. College Studies for the Gifted is a step in the right direction in the education of the gifted. 1 2 3 4 5 6 7

*20. I feel that even without special programs, gifted students will make it on their own. 1 2 3 4 5 6 7

21. In what ways have you helped your child set goals for himself?

22. If you feel that your child's goals have changed since participating in College Studies for the Gifted, how did they change?

23. Do you feel that any change occurred in the child's positive or negative attitude toward himself after being in College Studies for the Gifted?

24. Do you feel that any change occurred in the child's positive or negative attitudes toward others after being in College Studies for the Gifted?

25. Did the cost factor prove to be a problem for your family finances?

26. In what ways did your child benefit from participating in the College Studies for the Gifted Program?

27. How might we improve the College Studies for the Gifted Program for the benefit of all involved?

Note: Asterisked items indicate desired program outcomes for gifted students and of perceptions about the gifted programs from the junior/senior high schools from which they came.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

DEMOGRAPHIC INFORMATION

This must be completed at the end of each semester and then returned to Fort Hays State University.

1. Report covers: Fall ____; Spring ____; Summer ____.

2. Number of students from: Rural ____; Urban ____.

3. Number of public schools participating: ____.

4. Number of non-public schools participating: ____.

5. Number of students whose home backgrounds are:

   _____ Agriculture

   _____ Business

   _____ Medical

   _____ Professional

   _____ Education

   _____ Blue Collar

   _____ Other (specify) _____

6. Number of students whose ethnic origins are:

   _____ Caucasian

   _____ Black

   _____ Hispanic

   _____ Asian

   _____ Native American

   _____ Other

7. Number of students requiring financial aid: ____.

8. Number of students enrolled in College Studies for the Gifted:

   _____ 10-12 years old

   _____ 13-15 years old

   _____ 16-18 years old

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

CUMULATIVE RECORD FORM

This form must be filled out at the end of each semester and then returned to Fort Hays State University.

Semester _____; Year _____.

1. Student's Name	Course or Courses Taken	Credit Hours	Grade	Age	Cum. GPA

2. Average Cumulative GPA for each age range.

_____ 10-12 years

_____ 13-15 years

_____ 16-18 years

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

HIGHER EDUCATION FORM

This form must be completed at the end of the spring semester each year and then returned to Fort Hays State University.

Spring, 19__.

List CSG students with names, addresses, and phone numbers who have graduated from high school this semester.

Number of these students who are/or are planning to attend the following:

_____attending 4-year college/university

_____attending junior college

_____attending business/technical school

_____not attending higher education school

_____other (specify _____)

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

STUDENT RETENTION FORM

This must be completed at the end of each semester and then returned to Fort Hays State University.

1. Report covers: Fall____ (year); Spring____ (year); Summer____ (year).

2. Number of students who are:

   _____graduating this semester

   _____continuing in the CSG program

   _____dropping out of the CSG program

   _____moving out of the service area

3. For those dropping out, identify primary reason during the exit interview and report by category below.

   Number dropping due to:

   _____family finances

   _____family break-up

   _____interference with job of student

   _____dissatisfaction with program

   _____health of student or family member

   _____other (specify) _____

4. For those dropping out of high school, identify the primary reason(s) during the exit interview and report by category below:

   Number dropping due to:

   _____family problems

   _____dissatisfaction with school

   _____health of student

   _____problems in social relationships with peers

   _____other

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

WORKSHOP SUMMARY

This form must be completed after each interest subject workshop conducted by the CSG department and then returned to Fort Hays State University.

Date _____

1. Briefly explain the subject matter and goals of the workshop.

2. List faculty and staff conducting the workshop.

3. Number of schools participating _____

4. Number of students participating: _____

5. Total number of participants (i.e., sponsors and students): _____

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATION PROGRAM

CHARACTERISTICS OF DRAMATICALLY TALENTED PUPILS--CHECKLIST

STUDENT SELF-APPRAISAL

Date _____;

School _____; Student _____.

Directions: Place an X in the space beside each question which best describes you.

		YES	SOMETIMES	NO
1.	Generates ideas or solutions to problems and questions.	___	___	___
* 2.	Sees many aspects of one thing: fantasizes, imagines, manipulates ideas, elaborates.	___	___	___
* 3.	Is a high risk taker: adventurous and speculative.	___	___	___
4.	Displays a keen sense of humor.	___	___	___
5.	Is sensitive to beauty: attends to aesthetic characteristics.	___	___	___
6.	Predicts future events from present circumstances.	___	___	___
7.	Shows evidence of independent reading for information and pleasure.	___	___	___
* 8.	Asks many questions, often challenging the teacher and the textbook.	___	___	___
9.	Fools around a lot with whatever is at hand.	___	___	___
*10.	Work tends to be off the beaten track and with much humor.	___	___	___
*11.	Is often bored with memorization and recitation of facts (prefers talking about ideas and problems).	___	___	___
12.	Has a reputation among students and teachers for wild and silly ideas.	___	___	___
13.	Has much energy which gets him into trouble at times.	___	___	___
14.	Feels strongly about many things and often expresses his feelings.	___	___	___
*15.	On examinations, sometimes comes up with unexpected, even "smart-alecky" answers.	___	___	___
16.	Likes to work alone.	___	___	___

	YES	SOMETIMES	NO
*17. Is resented by some children because of his crazy ideas and his forcefulness in presenting and pushing them.	___	___	___
18. Does not usually appear to be working hard, but does fairly well at examination time.	___	___	___
*19. On special projects, shows unusual capacity for orginality, concentration, and just plain hard work.	___	___	___

Signature_____

Note: Asterisked items are key predictors of success is a College Studies for the Gifted Program.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

REVIEW FORM FOR DRAMATICALLY TALENTED STUDENTS
(to be completed by Theater Faculty, FHSU)

Name of Student _____ Grade _____

Product(s) Submitted to: _____

Brief description of product(s)

_____

_____

_____

_____

_____

Brief evaluation of product(s)

_____

_____

_____

_____

_____

History of Child; comments on relationship, etc.

_____

_____

_____

_____

_____

_____

Evaluated by: Signatures

Instructor _____ _____

Instructor _____ _____

Director of Theatre _____ _____

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

TEACHER APPRAISAL

WORKSHEET FOR IDENTIFYING DRAMATICALLY TALENTED STUDENTS

Directions: Place an X in the space beside each question which best describes the pupil.

		YES	SOMETIMES	NO
1.	Shows unusual ability to dramatize feelings and experiences.	___	___	___
*2.	When telling a story, moves a dramatic situation to a climax and brings it to a well-timed conclusion.	___	___	___
3.	Gets much satisfaction and happiness from playacting or dramatizing.	___	___	___
*4.	Writes original plays or makes up plays from stories.	___	___	___
5.	Can imitate others; mimics people and animals.	___	___	___
6.	Demonstrates ability and desire to use the spoken language effectively.	___	___	___
7.	Demonstrates a spirit of cooperation and discipline in relationships with fellow students and faculty.	___	___	___

Note: Asterisked items are key predictors of success in a College Studies for the Gifted Program.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

CHARACTERISTICS OF MUSICALLY TALENTED PUPILS--CHECKLIST

STUDENT SELF-APPRAISAL

Date _____;

School _____; Student _____.

Directions: Place an X in the space beside each questions which best describes you.

		YES	SOMETIMES	NO
1.	Generates ideas or solutions to problems and questions.	___	___	___
* 2.	Sees many aspects of one thing: fantasizes, imagines, manipulates ideas, elaborates.	___	___	___
* 3.	Is a high risk taker: adventurous and speculative.	___	___	___
4.	Displays a keen sense of humor.	___	___	___
5.	Is sensitive to beauty: attends to aesthetic characteristics.	___	___	___
6.	Predicts future events from present circumstances.	___	___	___
7.	Shows evidence of independent reading for information and pleasure.	___	___	___
* 8.	Asks many questions, often challenging the teacher and the textbook.	___	___	___
9.	Fools around a lot with whatever is at hand.	___	___	___
*10.	Work tends to be off the beaten track and with much humor.	___	___	___
*11.	Is often bored with memorization and recitation of facts (prefers talking about ideas and problems).	___	___	___
12.	Has a reputation among students and teachers for wild and silly ideas.	___	___	___
13.	Has much energy which gets him into trouble at times.	___	___	___
14.	Feels strongly about many things and often expresses his feelings.	___	___	___
15.	On examinations, sometimes comes up with unexpected, even "smart-alecky" answers.	___	___	___

		YES	SOMETIMES	NO
16.	Likes to work alone.	___	___	___
*17.	Is resented by some children because of his crazy ideas and his forcefulness in presenting and pushing them.	___	___	___
18.	Does not usually appear to be working hard, but does fairly well at examination time.	___	___	___
*19.	On special projects, shows unusual capacity for originality, concentration, and just plain hard work.	___	___	___

Signature _____

Note: Asterisked items are key predictors of success in a College Studies for the Gifted Program.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY

NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

REVIEW FORM FOR MUSICALLY TALENTED STUDENTS
(to be completed by Music Department, FHSU)

Name of Student _____ Grade _____

Product(s) Submitted To: _____

Brief description of product(s)

_____

_____

_____

_____

Brief evaluation of product(s)

_____

_____

_____

_____

History of Child; comments on relationship, etc.

_____

_____

_____

_____

_____

_____

_____

_____

Evaluated by: Signatures

Instructor _____

Instructor _____

Instructor _____

Chairman, Department of Music _____

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

WORKSHEET FOR IDENTIFYING MUSICALLY TALENTED STUDENTS

TEACHER APPRAISAL

Directions: Place an X in the space beside each questions which best describes the pupil.

		YES	SOMETIMES	NO
1.	Performs with musical feeling.	___	___	___
* 2.	Has good tonal memory.	___	___	___
3.	Responds readily to rhythm, melody, and harmony.	___	___	___
4.	Plays one or more musical instruments well and/or sings well.	___	___	___
* 5.	Composes, arranges, or ornaments music.	___	___	___

Note: Asterisked items are key predictors of success in a College Studies for the Gifted Program.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

STUDENT SELF-APPRAISAL

CHARACTERISTICS OF ARTISTICALLY TALENTED PUPILS--CHECKLIST

Date _____;

School _____; Student _____.

Directions: Place an X in the space beside each question which best describes you.

		YES	SOMETIMES	NO
1.	Generates ideas or solutions to problems and questions.	___	___	___
* 2.	Sees many aspects of one thing: fantasizes, imagines, manipulates ideas, elaborates.	___	___	___
* 3.	Is a high risk taker: adventurous and speculative.	___	___	___
4.	Displays a keen sense of humor.	___	___	___
5.	Is sensitive to beauty: attends to aesthetic characteristics.	___	___	___
6.	Predicts future events from present circumstances.	___	___	___
7.	Shows evidence of independent reading for information and pleasure.	___	___	___
* 8.	Asks many questions, often challenging the teacher and the textbook.	___	___	___
9.	Fools around a lot with whatever is at hand.	___	___	___
*10.	Work tends to be off the beaten track and with much humor.	___	___	___
*11.	Is often bored with memorization and recitation of facts (prefers talking about ideas and problems).	___	___	___
12.	Has a reputation among students and teachers for wild and silly ideas.	___	___	___
13.	Has much energy which gets him into trouble at times.	___	___	___
14.	Feels strongly about many things and often expresses his feelings.	___	___	___
*15.	On examinations, sometimes comes up with unexpected, even "smart-alecky" answers.	___	___	___

		YES	SOMETIMES	NO
16.	Likes to work alone.	___	___	___
*17.	Is resented by some children because of his crazy ideas and his forcefulness in presenting and pushing them.	___	___	___
18.	Does not usually appear to be working hard, but does fairly well at examination time.	___	___	___
*19.	On special projects, shows unusual capacity for originality, concentration, and just plain hard work.	___	___	___

Signature _____

Note: Asterisked items are key predictors of success in a College Studies for the Gifted Program.

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

REVIEW FORM FOR ARTISTICALLY TALENTED STUDENTS
(to be completed by Art Department, FHSU)

Name of Student _____ Grade _____

Product(s) Submitted to: _____

Brief description of product(s)

_____

_____

_____

_____

_____

Brief evaluation of product(s)

_____

_____

_____

_____

_____

History of Child; comments on relationship, etc.

_____

_____

_____

_____

_____

_____

Evaluated by: Signatures

Instructor _____ _____

Instructor _____ _____

Instructor _____ _____

Chairman, Department of Art _____ _____

COLLEGE STUDIES FOR THE GIFTED
FORT HAYS STATE UNIVERSITY
NATIONAL DIFFUSION NETWORK, DEVELOPER/DEMONSTRATOR PROGRAM

TEACHER APPRAISAL

WORKSHEET FOR IDENTIFYING ARTISTICALLY TALENTED STUDENTS

Directions: Place an X in the space beside each question which best describes the pupil.

		YES	SOMETIMES	NO
1.	Does more than the assignment.	___	___	___
2.	Rises above the failures met in creating art and in experimenting with art processes.	___	___	___
3.	Wants to know the reasons and causes for artistic effects.	___	___	___
* 4.	Shows originality and imagination. Draws things in ways that others do not.	___	___	___
* 5.	Is willing to try out new materials and experiences.	___	___	___
6.	Uses art to express his own experiences and feelings.	___	___	___
7.	Is interested in other people's art work. Can appreciate, criticize, and learn from others' work.	___	___	___

Note: Asterisked items are key predictors for success in a College Studies for the Gifted Program.